

Notice of Allowability

Application No.

10/073,171

Examiner

Davienne Monbleau

Applicant(s)

SPINK, ROGER

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Amendment filed 11/5/04 and the attached Examiner's Amendment.
2. ☒ The allowed claim(s) is/are 1-22 and 27-33.
3. ☒ The drawings filed on 05 June 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>12/13/04</u> . |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>11/5/04</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S COMMENT AND STATEMENT OF REASONS FOR ALLOWANCE

Information Disclosure Statement

The IDS filed on 11/5/04 has been acknowledged and a signed copy of the PTO-1449 is attached herein.

Response to Amendment

The amendment filed on 11/5/04 has been entered. Claims 1, 5, 14, 15 17-19 and 21 have been amended. New Claims 23-33 have been added. Claims 1-33 are pending.

Applicant's arguments filed on 11/5/04 have been carefully considered and found persuasive in light of the corresponding amendments.

In particular, Applicant argues on page 10 that the cited prior art of record (*Leblans*) does not teach or suggest "an image sensor analysis unit [that] is adapted to detect image changes in distinct regions of a specimen over time." Examiner held that *Leblans* did teach this limitation in the "Description of the Related Art." (*Leblans* page 1 [0006]). "When the observed object is larger than the field of view of the microscope, the microscope can only focus on the portion of the object that can be observed through the field of view of the microscope." This requires that the objective move in a direction perpendicular to its optical axis to observe the distinct regions. However, *Leblans* teaches away from this structure because it requires that "the focusing conditions must be regularly checked and adjusted in order to maintain a sharp image of the whole object." *Leblans*, on the other hand, teaches autofocus detection by determining the amount of displacement of the image of the object plane in the optical system from a desired focused reference plane based on the detected displacement of an image plane of the reflected autofocus light beam from a predetermined reference plane in the autofocus detection

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system.” (*Leblans* page 2 [0014]). *Leblans* does not teach detecting image changes in distinct regions of the specimen over time.

Accordingly, the incorporated Examiner’s amendment for Claim 27 further clarifies that the objective is moved along its optical axis, not perpendicular to its optical path, which would be required to view distinct regions as taught in the background art. (See Examiner’s Amendment below).

Examiner’s Amendment

An examiner’s amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner’s amendment was given in a telephone interview with Frederick Tenney on 12/13/04.

The application has been amended as follows:

Claims 23-26: CANCEL

Claim 27 line 6: insert -- along an optical axis of the objective -- after “automatically moved.”

Claim 27 line 7: insert -- along the optical axis of the objective -- after “corresponding to a.”

Allowable Subject Matter

Claims 1-22 and 27-33 are allowed in light of the corresponding amendments.

The following is an examiner’s statement of reasons for allowance:

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Regarding Claims 1-18, the cited prior art of record does not teach or fairly suggest a method for autofocusing the objective of an optical device onto a target region of a specimen comprising, along with the other claimed features, determining image changes for each of the plurality of regions of the specimen and defining as the target region the region among the plurality of regions of the specimen which exhibits a predetermined image change value.

Regarding Claims 19-22 and 27-33, the cited prior art of record does not teach or fairly suggest an apparatus for automatically focusing an optical system comprising, along with the other claimed features, an image sensor that is adapted to detect image changes in distinct regions of the specimen over time.

The advantages of these features are in the specification on pages 1-4. In particular, these features permit a user to focus on a distinct region of a specimen without have to move the objective to a different field of view.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davienne Monbleau whose telephone number is 571-272-1945. The examiner can normally be reached on Mon-Fri 9:00 am to 5:00 pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Darienne Menbleau

DNM


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